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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,012	03/02/2004	Anne Flisher	GT/3-21923/A/AC/ 533/CONT	1286

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PATENT DEPARTMENT
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EXAMINER

BERMAN, SUSAN W

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

LD

Office Action Summary	Application No. 10/791,012	Applicant(s) FLISHER ET AL	
	Examiner Susan W Berman	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 17, 18 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 17, 18 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The title "Polymerization Process" does not indicate how the instantly claimed process differs from all known prior polymerization processes.

The disclosure is objected to because of the following informalities: There are no headings,, i.e. Background of the invention, Summary of the invention, Brief Description of the Drawings, etc..

Appropriate correction is required.

Response to Amendment

The amendment filed 01-14-2005 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material that is not supported by the original disclosure is as follows: "and the formed polymer in step (b) is not a gelled polymer". Applicant points to page 1, paragraph 3, for support in the specification for this amendment. However, this paragraph is a discussion of the background of the invention and what is known in the prior art. The disclosure found on page 7, paragraph 2, does not provide support for the amendment for the following reasons. This paragraph discusses solution polymerization, reverse phase polymerization and emulsion polymerization as alternative methods for polymerizing an aqueous solution of water soluble monomer to produce water soluble or water swellable polymers. There is no mention of polymers that do not comprise gels as the product. Applicant's claim recites a process for preparing "water soluble or water swellable polymer", which polymer would be expected to be a gelled polymer. Cywar et al (6,262,141) teach that polymer gels are produced by emulsion or suspension polymerization, as well as by solution polymerization (column 5, lines 51-62). Ahr (5,800,418) also teaches that absorbent gelling materials can be prepared by inverse emulsion or inverse suspension polymerization, as well as by solution polymerization (column 5, lines

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17-30). If the formed polymer in step b is not a gelled polymer, how can it be a water-soluble or water swellable polymer?

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-11, 17-18 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Cywar et al (6,262,141). Cywar et al teach polymerizing vinyl monomers, including acrylamide, in aqueous solution activated by the presence of redox initiators or a thermal initiator and in the presence of an ultraviolet photoinitiator. The product is then irradiated with an intensity of 2-20 mW/cm², such as 15 mW/cm² in the examples, during the period of drying. See column 4, lines 25-39, lines 46-67, column 5, lines 23-34, the "Gelled Polymer Synthesis" and Example 1. With respect to claim 5, the polymers disclosed by Cywar et al would be expected to have the instantly claimed intrinsic viscosity because the polymers produced are provided by the same monomers and method steps as are instantly claimed. With respect to claim 21, Cywar et al teach emulsion or suspension polymerization, as well as by solution polymerization, in column 5, lines 51-62. Since Cywar et al disclose a process corresponding to the

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instantly claimed process, the disclosed process would be expected to produce the a polymeric product having the same properties, in the absence of evidence to the contrary.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, 17-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 290 814 in view of Cywar et al '141. EP '814 discloses the instantly claimed method except for adding an ultraviolet initiator to the monomer mixture. Cywar et al, in analogous art, teach that vinyl monomers can be polymerized in aqueous solution by activation of redox or thermal initiators in the presence of an ultraviolet initiator. It would have been obvious to one skilled in the art at the time of the invention to add an ultraviolet initiator to the monomer mix, as taught by Cywar et al in analogous art, in the method disclosed by EP '814 in order to take advantage of the initiating properties of the ultraviolet initiator during the step of irradiation with ultraviolet light, as taught by Cywar et al.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-11, 17, 18 and 21 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of copending Application No. 10/468191 in view of Cywar et al (6,262,141). The claims of SN '191 recite process steps comprising forming an aqueous mixture including ultraviolet initiators and effecting polymerization by subjecting the mixture to irradiation at a specific light intensity and then subjecting the product to irradiation at a higher light intensity. The difference from the instantly claimed process is that the instantly claimed process sets forth a limitation that polymerization step b is conducted "substantially" in the absence of ultraviolet radiation although in the presence of a UV initiator in the mixture. Step b in the process of SN '191 encompasses step b in the instantly claimed process wherein polymerization is effected by the polymerization conditions of irradiation within the limitation of being conducted "substantially" in the absence of ultra-violet radiation. Cywar et al teach polymerizing vinyl monomers, including acrylamide, in aqueous solution activated by the presence of redox initiators or a thermal initiator and in the presence of an ultraviolet photoinitiator and then irradiating the product with a light intensity of 2-20 mW/cm² during the period of drying. It would have been obvious to one skilled in the art at the time of the invention to add a redox or thermal initiator to an aqueous mixture of ethylenically unsaturated monomer and photoinitiator set forth in the claims of SN '191, as taught by Cywar et al in analogous art, in order to effect polymerization by a combination of chemical or thermal initiation and photoinitiation in the process step b claimed in SN '191. Cywar et al provide motivation by teaching that a step wherein a redox initiator or a thermal initiator is activated in the presence of an ultraviolet photoinitiator is suitable to polymerize the vinyl monomers in an aqueous mixture, followed by irradiating the product in a second step.

This is a provisional obviousness-type double patenting rejection.

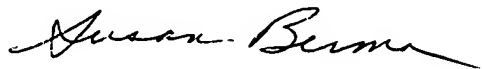
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Susan W Berman
Primary Examiner
Art Unit 1711

SB
February 11, 2005